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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,438	07/12/2004	Yung-Ming CHIU	REAP0068USA	4437
27765	7590	01/25/2006	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			STERRETT, JEFFREY L	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/710,438

Applicant(s)

CHIU, YUNG-MING

Examiner

Jeffrey L. Sterrett

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/26/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 2838

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-7, 11-13, and 15-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Calafato et al (US 6,133,718).

Calafato et al discloses a reference generator (Figure 7) comprising a plurality of signal generators (10 and 11) producing a plurality of signals corresponding to a plurality of temperature dependent characteristics, a combining module (12) combining the plurality of signals into a combined signal ( $I_{ref}$ ) as recited by claims 1-3, 5-7, 11-13, and 15-17 except for utilizing a signal to voltage converter generating a reference voltage from the combined signal. Official notice is taken that utilizing a resistor as a signal to voltage converter to generate a reference voltage from a reference current was an old and known expedient in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the reference generator of Calafato et al by utilizing a signal to voltage converter, such as a resistor, to generate a reference voltage from the reference current since this is nothing more than basic electrical engineering utilizing the relationship of current through a resistor to the voltage across the resistor,  $V=IR$ .

3. Claims 4 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Calafato et al (US 6,133,718).

Calafato et al discloses a reference generator as explained above and as recited by claims 4 and 14 except for utilizing at least 3 signal generators. It would have been

obvious to one of ordinary skill in the art at the time of the invention to have modified the reference generator of Calafato et al by utilizing at least 3 signal generators since it has been held that where the general conditions of the claim are disclosed in the cited and applied prior art, discovering the optimum or workable value of a result effective variable involves only routine skill in the art (In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)).

4. Claims 8-10 and 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Calafato et al (US 6,133,718).

Calafato et al discloses a reference generator (Figure 7) as explained above and as recited by claims 8-10 and 18-20 except for utilizing specific circuitry as each signal generator. Official notice is taken that the specifically recited signal generator circuitry was an old and known expedient in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the reference generator of Calafato et al by utilizing any old and known signal generator circuitry, such as that specifically recite by applicant, as the signal generators (10 and 11) since said artisan would be expected to utilize which ever old and known signal generator circuitry best suited the situation at hand.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brokaw (US 4,622,512), Annema (US 6,124,704), Kirkland et al (US 6,181,121), and Ueda (US 6,937,001) are cited to show other reference generators similar that the recited reference generator. It is noted that the cited reference to Tourmazou et al is also very similar to the recited reference generator.

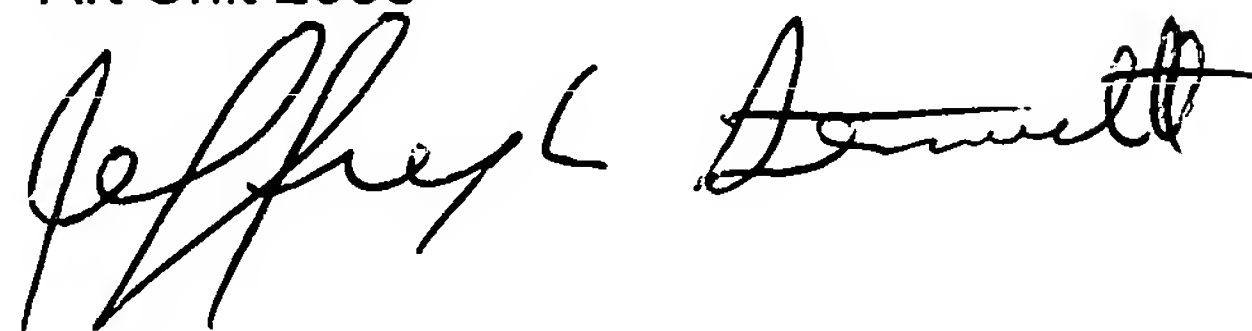
Leung (US 6,111,397) and Chavan et al (US 6,566,849) are cited to show reference generators old and known in the art at the time of the invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Sterrett whose telephone number is (571) 272-2085. The examiner can normally be reached on Monday-Thursday & 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey L. Sterrett  
Primary Examiner  
Art Unit 2838

A handwritten signature in black ink, appearing to read "Jeffrey L. Sterrett", is written over the printed name and title.